

DEPARTMENT OF ENERGY

10 CFR Part 431

[EERE-2022-BT-STD-0014]

RIN 1904-AF39

Energy Conservation Program: Energy Conservation Standards for Certain Commercial and Industrial Equipment; Small Electric Motors

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Request for information.

SUMMARY: The U.S. Department of Energy ("DOE") is undertaking a review for amended energy conservation standards for small electric motors to determine whether to amend applicable energy conservation standards for this equipment. Specifically, through this request for information ("RFI"), DOE seeks data and information to evaluate whether amended energy conservation standards would result in significant savings of energy; be technologically feasible; and be economically justified. DOE welcomes written comments from the public on any subject within the scope of this document (including those topics not specifically raised in this RFI), as well as the submission of data and other relevant information concerning this RFI.

DATES: Written comments and information are requested and will be accepted on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov*, under docket number EERE–2022–BT–STD-0014. Follow the instructions for submitting comments. Alternatively, comments may be submitted by e-mail to *SmallElecMotors2022STD0014@ee.doe.gov*. Include docket number EERE–2022–BT–STD-0014 in the subject line of the message.

No telefacsimiles ("faxes") will be accepted. For detailed instructions on submitting comments and additional information on this process, see section III of this document.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including the Federal eRulemaking Portal, email, postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing corona virus 2019 ("COVID-19") pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586-1445 to discuss the need for alternative arrangements. Once the COVID-19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

Docket: The docket for this activity, which includes Federal Register notices, comments, and other supporting documents/materials, is available for review at www.regulations.gov. All documents in the docket are listed in the www.regulations.gov index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket webpage can be found at www.regulations.gov/docket/EERE-2022-BT-STD-0014. The docket webpage contains instructions on how to access all documents, including public comments, in the docket. See section III for information on how to submit comments through www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: Mr. Jeremy Dommu, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-9870. Email: ApplianceStandardsOuestions@ee.doe.gov.

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-8145. E-mail: *Michael.Kido @hq.doe.gov*.

For further information on how to submit a comment or review other public comments and the docket, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by e-mail: *ApplianceStandardsQuestions@ee.doe.gov*.

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I. Introduction

DOE has established a review process to conduct a more focused analysis to evaluate, based on statutory criteria, whether a new or amended energy conservation standard is warranted. Based on the information received in response to the RFI and DOE's own analysis, DOE will determine whether to proceed with a rulemaking for a new or amended energy conservation standard. If DOE makes an initial determination that a new or amended energy conservation standard would satisfy the applicable statutory criteria or DOE's analysis is inconclusive, DOE would undertake the preliminary stages of a rulemaking to issue a new or amended energy conservation standard. If DOE makes an initial determination based upon available evidence that a new or amended energy conservation standard would not meet the applicable statutory

criteria, DOE would engage in a notice and comment rulemaking before issuing a final determination that new or amended energy conservation standards are not warranted.

A. Authority

The Energy Policy and Conservation Act, as amended ("EPCA"), among other things, authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291-6317) Title III, Part C² of EPCA, added by Pub. L. 95-619, Title IV, section 441(a) (42 U.S.C. 6311-6317, as codified), established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. This equipment includes small electric motors ("SEMs"), the subject of this document. (42 U.S.C. 6311(13)(G); 42 U.S.C. 6317(b))

Under EPCA, DOE's energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6311), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6313), and the authority to require information and reports from manufacturers (42 U.S.C. 6316; 42 U.S.C. 6296).

EPCA directed DOE to establish a test procedure for those SEMs for which DOE determined that energy conservation standards would (1) be technologically feasible and economically justified and (2) result in significant energy savings. (42 U.S.C. 6317(b)(1)) Manufacturers of covered equipment must use the Federal test procedures as the basis for: (1) certifying to DOE that their equipment complies with the applicable

¹ All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Pub. L. 116-260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A-1 of EPCA.

² For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A-1.

energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6316(a); 42 U.S.C. 6295(s)), and (2) making representations about the efficiency of that equipment (42 U.S.C. 6314(d)). The DOE test procedures for SEMs appear at 10 CFR part 431, subpart X.

EPCA further directed DOE to prescribe energy conservation standards for those SEMs for which test procedures were established. (42 U.S.C. 6317(b)(2)) Additionally, EPCA prescribed that any such standards shall not apply to any SEM which is a component of a covered product under 42 U.S.C. 6292(a) or covered equipment under 42 U.S.C. 6311 of EPCA. (42 U.S.C. 6317(b)(3)) Federal energy efficiency requirements for covered equipment established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (*See* 42 U.S.C. 6316(a) and (b); 42 U.S.C. 6297(a)-(c)).

EPCA requires that, not later than 6 years after the issuance of any final rule establishing or amending a standard, DOE evaluate the energy conservation standards for each type of covered equipment, including those at issue here, and publish either a notice of determination that the standards do not need to be amended, or a NOPR that includes new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)). EPCA further provides that, not later than 3 years after the issuance of a final determination not to amend standards, DOE must make a new determination not to amend the standards or issue a NOPR including new proposed energy conservation standards. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(3)(B)) DOE must make the analysis on which a determination is based publicly available and provide an opportunity for written comment. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(2))

In making a determination that the standards do not need to be amended, DOE must evaluate under the criteria of 42 U.S.C. 6295(n)(2) whether amended standards (1) will result in significant conservation of energy, (2) are technologically feasible, and (3)

are cost effective as described under 42 U.S.C. 6295(o)(2)(B)(i)(II). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)) Under 42 U.S.C. 6295(o)(2)(B)(i)(II), an evaluation of cost effectiveness requires DOE to consider savings in operating costs throughout the estimated average life of the covered product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered products which are likely to result from the imposition of the standard.

DOE is publishing this document in accordance with its authority under EPCA, and in satisfaction of its statutory requirement under EPCA.

B. Rulemaking History

On January 19, 2021, DOE published a notice of final determination ("January 2021 Final Determination") with the determination that energy conservation standards for SEMs should not be amended. 86 FR 4885. In the January 2021 Final Determination, while DOE determined that more stringent standards would be technologically feasible, DOE also determined that more stringent energy conservation standards would not be cost effective. 86 FR 4885, 4906. Therefore, DOE determined that the current standards for SEMs did not need to be amended. *Id*.

C. Deviation from Appendix A

In accordance with section 3(a) of 10 CFR part 430, subpart C, appendix A ("appendix A"), applicable to covered equipment under 10 CFR 431.4, DOE notes that it is deviating from that appendix's provision requiring an early assessment review and a 75-day comment period for all pre-NOPR standards documents. 10 CFR part 430, subpart C, appendix A, sections 6(a)(1) and 6(d)(2). Given that the market and technologies have not changed substantively since the prior rulemaking during which stakeholders were

provided an opportunity to comment, this RFI with the 30-day comment period is expected to provide sufficient opportunity for stakeholders to provide comment.

II. Request for Information

DOE is publishing this RFI to collect data and information to inform its decision, consistent with its obligations under EPCA, as to whether the Department should proceed with an energy conservation standards rulemaking. In the following sections, DOE has identified certain topics for which information and data are requested to assist in the evaluation of the potential for amended energy conservation standards. DOE also welcomes comments on other issues relevant to the RFI that may not specifically be identified in this document.

A. Significant Savings of Energy

In the January 2021 Final Determination, DOE determined that amended standards would not satisfy the cost-effectiveness criterion as required by EPCA when determining whether to amend standards for a given covered product or equipment. (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)(C)) Consequently, DOE did not separately determine whether the potential energy savings would be significant for the purposes of 42 U.S.C. 6295(n)(2). 86 FR 4885, 4899.

On March 9, 2010, DOE established the current energy conservation standards for small electric motors. 75 FR 10874 ("March 2010 Final Rule"). In the March 2010 Final Rule, DOE projected that the adopted energy conservation standards would result in 2.2 quadrillion British thermal units ("quads") of primary energy savings over a 30-year period (*i.e.*, 0.29 quad at TSL 4b for polyphase SEMs and 1.91 quad at TSL 7 for single phase SEMs). 75 FR 10874, 10876. Additionally, DOE estimated that an energy conservation standard established at an energy efficiency level equivalent to that

achieved using the maximum available technology ("max-tech") would have resulted in 2.7 quads of primary energy savings (i.e., an additional 0.5 quads of primary energy savings above the selected standard) (*i.e.*, 0.37 quad at TSL 7 for polyphase SEMs and 2.33 quad at TSL 8 for single phase SEMs). 75 FR 10874, 10916.

While DOE's request for information is not limited to the following issues, DOE is particularly interested in comment, information, and data on the following topics.

- DOE seeks comments on whether the results of the energy use are still relevant.
 Specifically, DOE seeks inputs on whether the inputs to the energy use calculation used in the January 2021 Final Determination are still relevant. If revisions are needed, DOE seeks input on data sources that DOE can use to characterize the variability in annual energy consumption for SEMs. Specifically, DOE is requesting data and information related to: (1) the distribution of shipments across applications and sectors by equipment class or by motor topology and horsepower; (2) typical operating hours by application and sector; (3) typical motor load by application and sector; and (4) typical load profiles (i.e., percentage of annual operating hours spent at specified load points) by application and sector.
- 2. DOE seeks comments on whether the no-new standards case efficiency distributions used in the January 2021 Final Determination still reflect the current mix of equipment efficiency in the market. DOE seeks data and input on the appropriate efficiency distribution in the no-new standards case for SEMs by equipment class group and horsepower range. DOE seeks data that would support changes in efficiency distributions over time in the no-new standards case.
- 3. DOE seeks comments on whether or not the inputs to the shipments analysis used in the March 2010 Final Rule are still relevant. DOE further requests 2011-2021 (or the most recently available) annual sales data (i.e., number of shipments) for

SEMs by equipment class. If disaggregated data of annual sales are not available at the equipment class level, DOE requests more aggregated data of annual sales at the motor topology level. DOE also requests data and information to help characterize future shipments of SEMs by equipment classes. Specifically, DOE requests information on the rate at which annual sales (i.e., number of shipments) of SEMs is expected to change in the next 5-10 years. If possible, DOE requests this information by motor topology.

B. Technological Feasibility

During the January 2021 Final Determination, DOE considered a number of technology options that manufacturers could use to reduce energy consumption in SEMs.

- 4. DOE seeks comment on any changes to these technology options since the January 2021 Final Determination that could affect whether DOE could propose a "nonew-standards" determination, such as an insignificant increase in the range of efficiencies and performance characteristics of these technology options. DOE also seeks comment on whether there are any updated or new technology options that DOE should consider in its analysis.
 - 5. DOE seeks comment on whether the methodologies employed in the January 2021
 Final Determination engineering analysis, specifically regarding the adoption of
 the motor designs and associated efficiency levels considered in the March 2010
 Final Rule analysis as the basis for the final determination, still apply. If not, DOE seeks comment on how the methodologies should be updated.

C. Economic Justification

In determining whether a proposed energy conservation standard is economically justified, DOE analyzes, among other things, the potential economic impact on

consumers, manufacturers, and the Nation. DOE seeks comment on whether there are economic barriers to the adoption of more stringent energy conservation standards. DOE also seeks comment and data on indicating whether a more stringent energy conservation standard would be cost effective and economically justified.

While DOE's request for information is not limited to the following issues, DOE is particularly interested in comment, information, and data on the following.

- 6. DOE seeks input on whether and how the costs estimated for motor designs considered in the January 2021 Final Determination have changed since the time of that analysis. DOE also requests information on the investments (including related costs) necessary to incorporate specific design options, including, but not limited to, costs related to new or modified tooling (if any), materials, engineering and development efforts to implement each design option, and manufacturing/production impacts.
- 7. DOE requests information on the existence of any distribution channels other than the channels that were identified in the January 2021 Final Determination. DOE also requests data on the fraction of sales that go through these channels and any other identified channels. ³
- 8. DOE seeks comments on whether the lifetime inputs used in the January 2021

 Final Determination are still valid. DOE seeks data and input on the appropriate

end-users (5 percent of shipments). 86 FR 4885, 4899

³ In the January 2021 Final Determination, DOE identified three distribution channels for small electric motors and estimated their respective shares of sales volume: (1) from manufacturers to original equipment manufacturers ("OEMs"), who incorporate motors in larger pieces of equipment, to OEM equipment distributors, to contractors, and then to end-users (65 percent of shipments); (2) from manufacturers to wholesale distributors, to OEMs, to OEM equipment distributors, to contractors, and then to end-users (30 percent of shipments); and (3) from manufacturers to distributors or retailers, to contractors and then to

equipment lifetimes for small electric motors both in years and in lifetime mechanical hours that DOE should apply in its analysis.⁴

III. Submission of Comments

DOE invites all interested parties to submit in writing by the date under the **DATES** heading, comments and information on matters addressed in this notification and on other matters relevant to DOE's review of whether more-stringent energy conservation standards are warranted for SEMs.

Submitting comments via www.regulations.gov. The www.regulations.gov webpage requires you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. If this instruction is followed, persons viewing

⁴ In the January 2021 Final Determination, DOE used two Weibull distributions. One characterizes the motor lifetime in total operating hours (i.e., mechanical lifetime), while the other characterizes the lifetime in years of use in the application (e.g., a pump). DOE estimated motor mechanical lifetimes of 40,000 hours for polyphase motors and 30,000 hours for single phase motors. DOE estimated average application lifetimes to 7.8 - 9.7 years. 86 FR 4885, 4902

comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to www.regulations.gov information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (CBI)). Comments submitted through www.regulations.gov cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through www.regulations.gov before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that www.regulations.gov provides after you have successfully uploaded your comment.

Submitting comments via email. Comments and documents submitted via email also will be posted to www.regulations.gov. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. Faxes will not be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, or text (ASCII) file format.

Provide documents that are not secured, written in English, and free of any defects or

viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

DOE considers public participation to be a very important part of the process for developing test procedures and energy conservation standards. DOE actively encourages the participation and interaction of the public during the comment period in each stage of this process. Interactions with and between members of the public provide a balanced discussion of the issues and assist DOE in the process. Anyone who wishes to be added to the DOE mailing list to receive future notices and information about this process should contact Appliance and Equipment Standards Program staff at (202) 287-1445 or via e-mail at *ApplianceStandardsQuestions@ee.doe.gov*.

Signing Authority

This document of the Department of Energy was signed on April 14, 2022, by

Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency

and Renewable Energy, pursuant to delegated authority from the Secretary of Energy.

That document with the original signature and date is maintained by DOE. For

administrative purposes only, and in compliance with requirements of the Office of the

Federal Register, the undersigned DOE Federal Register Liaison Officer has been

authorized to sign and submit the document in electronic format for publication, as an

official document of the Department of Energy. This administrative process in no way

alters the legal effect of this document upon publication in the Federal Register.

Signed in Washington, D.C., on April 15, 2022.

Treena V. Garrett, Federal Register Liaison Officer, U.S. Department of Energy.

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